

**REMARKS**

Claims 1-20 were pending in this application.

Claims 1-20 have been rejected.

Claims 1-4, 7-10, 13-16, and 19 have been amended as shown above.

Claims 1-20 remain pending in this application.

Reconsideration and full allowance of Claims 1-20 are respectfully requested.

**I. OBJECTION TO CLAIMS**

The Office Action objects to Claim 19 as being an improper dependent claim because it does not further limit the scope of its base claim. In particular, the Office Action asserts that “expansion of a material with heat is an intrinsic property of a material and as such does not limit the structure of claim 13.” (*Office Action, Page 2, First paragraph*).

Claim 13 recites “polysilicon material” deposited on top of a trench to protect a “silicon dioxide liner.” Claim 19 has been amended to recite that the polysilicon material deposited on top of the trench is capable of “preventing expansion of the silicon dioxide liner during oxidation by expanding vertically and laterally when oxidized.” Based on this, amended Claim 19 clearly limits the scope of Claim 13.

Accordingly, the Applicant respectfully requests withdrawal of the objection to the claims.

## II. REJECTION UNDER 35 U.S.C. § 102

The Office Action rejects Claims 1-20 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,911,109 to Razouk et al. ("*Razouk*"). This rejection is respectfully traversed.

A prior art reference anticipates a claimed invention under 35 U.S.C. § 102 only if every element of the claimed invention is identically shown in that single reference, arranged as they are in the claims. (*MPEP* § 2131; *In re Bond*, 910 F.2d 831, 832, 15 U.S.P.Q.2d 1566, 1567 (Fed. Cir. 1990)). Anticipation is only shown where each and every limitation of the claimed invention is found in a single prior art reference. (*MPEP* § 2131; *In re Donohue*, 766 F.2d 531, 534, 226 U.S.P.Q. 619, 621 (Fed. Cir. 1985)).

Claims 1, 7, and 13 have been amended to recite that "polysilicon material" deposited on top of a trench is etched "so as to leave a portion of the deposited polysilicon material" that is "over the trench" and that "extends laterally" over "at least one edge of the trench." The Office Action relies on a polysilicon layer 802 of *Razouk* as anticipating the "polysilicon material" recited in Claims 1, 7, and 13. Figure 9 of *Razouk* illustrates that the polysilicon layer 802 is "etched back." (*Col. 5, Lines 35-39*). The Office Action does not establish that the polysilicon layer 802 of *Razouk*, after being etched back, "extends laterally" over "at least one edge of the trench" as recited in Claims 1, 7, and 13. As a result, the Office Action does not establish that *Razouk* anticipates all elements of Claims 1, 7, and 13 (and their dependent claims).

For these reasons, the Office Action does not establish that *Razouk* anticipates the Applicant's invention as recited in Claims 1, 7, and 13 (and their dependent claims).

The dependent claims are patentable over *Razouk* due to their dependence from allowable base claims and in light of their own recitations. For example, Claims 3, 9, and 15 recite a “silicon dioxide liner” on “horizontal portions” of a substrate that are adjacent to at least one edge of a trench. Claims 4, 10, and 16 recite that the “portion of the polysilicon material” (after etching) “extends laterally” over the “horizontal portions” of the substrate at the at least one edge of the trench “that is covered with the silicon dioxide liner.”

The Office Action relies on a silicon dioxide layer 602 (having corners 604-606) of *Razouk* as anticipating the “silicon dioxide liner” recited in the claims. Figure 9 of *Razouk* illustrates the polysilicon layer 802 after being etched back and the location of the silicon dioxide layer 602. The Office Action does not establish that the polysilicon layer 802 of *Razouk*, after being etched back, extends “laterally” over “horizontal portions” of a substrate, where the “horizontal portions” of the substrate are “covered with the silicon dioxide liner” and are adjacent to “at least one edge of [a] trench” as recited in Claims 4, 10, and 16.

Accordingly, the Applicant respectfully requests withdrawal of the § 102 rejection and full allowance of Claims 1-20.

### **III. CONCLUSION**

The Applicant respectfully asserts that all pending claims in this application are in condition for allowance and respectfully requests full allowance of the claims.

**SUMMARY**

If any outstanding issues remain, or if the Examiner has any further suggestions for expediting allowance of this application, the Applicant respectfully invites the Examiner to contact the undersigned at the telephone number indicated below or at *wmunck@davismunck.com*.


The Commissioner is hereby authorized to charge any fees connected with this communication (including any extension of time fee) or credit any overpayment to Davis Munck Deposit Account No. 50-0208.

Respectfully submitted,

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